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**Docket No. KRAUSE-01**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: KRAUSE, ROBERT P.

Serial No.: 09/505,947

Filed: February 15, 2000

For: FINANCIAL INSTRUMENTS, SYSTEM AND  
EXCHANGES (FINANCIAL, STOCK, OPTION  
AND COMMODITY) BASED UPON  
VOLATILITY

Commissioner for Patents  
Mail Stop: Petition  
P.O. Box 1450  
Alexandria, VA 22313-1450

) Examiner: Karmis, Stefanos  
) Art Unit : 3624  
)  
)  
)

**CERTIFICATE OF MAILING**

Pursuant to 37 C.F.R. §1.8(a), I hereby certify that this correspondence is being deposited with the U.S. Postal Service, postage prepaid, for first class mailing to Commissioner for Patents, Mail Stop: Petition, P.O. Box 1450, Alexandria, Virginia 22313-1450 on July 10, 2006 (date of deposit),

by:   
Mitchell A. Stein  
Reg. No. 30,978

**PETITION TO WITHDRAW HOLDING OF ABANDONMENT**

1. This is a petition to cancel withdraw a holding of abandonment pursuant to 37 C.F.R. § 1.8(a) and 37 C.F.R. § 1.181(a). Abandonment of the above-referenced application was caused, not by fault of the Applicant, but, upon information and belief, by USPTO error. Hence, as demonstrated below, Applicant is entitled to have the holding of abandonment withdrawn, and the application prosecuted, without any further delay.

**FACTS**

2. On May 19, 2005 Applicant was mailed an Office Action which set a three month time period to respond, thereby making Applicant's reply due by August 19, 2005. (See Ex. 1).

3. Applicant requested, and provided the appropriate fee for, a three month extension of time, thereby extending the time to respond to the May 19, 2005 Office Action

through to, and including November 21, 2005 (November 19, 2005 being a Saturday). 37 C.F.R. § 1.7. (See Ex. 2 & 3).

4. Applicant mailed a timely reply to the Office Action dated May 19, 2005 on November 21, 2005, as indicated by the Certificate of Mailing. (See Ex. 2). The undersigned certified in the Certificate of Mailing, upon personal knowledge, that the reply to the Office Action dated May 19, 2005 was “deposited with the U.S. Postal Service, postage prepaid, for first class mailing to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 21, 2005.” (Ex. 2, emphasis added). However, Applicant’s reply was not received by the USPTO until November 25, 2005 (a reasonable turn-around time for a reply that was mailed on November 21, 2005 to travel from Long Island to Virginia).

5. Upon information and belief, rather than entering Applicant’s reply to the May 19, 2005 Office Action as filed November 21, 2005 (the date of mailing as per the Certificate of Mailing), the USPTO clerk improperly entered November 25, 2005 as the filing date for Applicant’s reply to the May 19, 2005 Office Action (the date of receipt). As Applicant’s reply to reply expired on November 21, 2005, the above-referenced application became abandoned on or about November 25, 2005.

#### **GROUND TO WITHDRAW HOLDING OF ABANDONMENT**

6. Pursuant to 37 C.F.R. 1.8(a)(1):

Correspondence will be considered as being timely filed if: (i) The correspondence is mailed or transmitted prior to expiration of the set period of time by being: (A) Addressed as set out in § 1.1(a) and deposited with the U.S. Postal Service with sufficient postage as first class mail; or (B) Transmitted by facsimile to the Patent and Trademark Office in accordance with § 1.6(d); and (ii) The correspondence includes a certificate for each piece of correspondence stating the date of deposit or transmission.

7. Pursuant to 37 C.F.R. 1.8(a)(1), “[t]he person signing the certificate should have reasonable basis to expect that the correspondence would be mailed or transmitted on or before the date indicated.

8. As indicated above, the undersigned certified in the Certificate of Mailing, upon personal knowledge, that the reply to the Office Action dated May 19, 2005 was “deposited with the U.S. Postal Service, postage prepaid, for first class mailing to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 21, 2005,” thus satisfying the procedure under 37 C.F.R. 1.8(a)(1) to have the correspondence considered as timely filed. (Ex. 2, emphasis added). However, due to no fault of Applicant, the correspondence was delivered to the USPTO until November 25, 2006, and the application hence became abandoned.

9. MPEP § 512 provides that “[i]f the date stated [in Certificate of Mailing] is within the period for reply, the reply in most instances will be considered to be timely. ***This is true even if the paper does not actually reach the Office until after the end of the period for reply.***” (Emphasis added). Such is the case here. Applicant’s reply should have been accorded the filing date provided in the Certificate of Mailing (November 21, 2005), but was rather improperly accorded the date of receipt as a filing date for Applicant’s reply (November 25, 2005). Filing of Applicant’s reply on November 25, 2005, when Applicant’s period to reply expired on November 21, 2005, subsequently caused the above-referenced application to improperly become abandoned.

10. Where, as here, an application is abandoned in error, 37 C.F.R. 1.181(a) provides that Applicant may petition to request withdrawal of the holding of abandonment. If

there were ever a situation where 37 C.F.R. 1.181(a) was intended to apply, we submit that this is it. Indeed, the undersigned can attest (and has already done so in the Certificate of Mailing) that Applicant's reply to the May 19, 2005 Office Action was in fact mailed on November 21, 2005, regardless of when the same was received by the USPTO. Why Applicant's reply was not given the filing date in accordance with the Certificate of Mailing is anyone's guess. As such, the error, which was clearly not the fault of Applicant, should be rectified forthwith so as not to cause Applicant any further detriment.

**WHEREFORE** it is respectfully requested that (1) Applicant's reply to the Office Action dated May 19, 2005 be accorded a filing date to correspond with the date of deposit of the correspondence in the Certificate of Mailing, and (2) the holding of abandonment be withdrawn.

Respectfully submitted,



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Dated: July 10, 2006

# EXHIBIT 1



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,947	02/15/2000	Robert P. Krause	Krause-01	5610

7590

05/19/2005

Mitchell A. Stein, Esq.  
Stein Law, P.C.  
24 Woodbine Avenue,  
Suite 4  
Northport, NY 11768

EXAMINER

KARMIS, STEFANOS

ART UNIT

PAPER NUMBER

3624

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

### DETAILED ACTION

1. The following communication is in response to Applicant's amendment filed on 11 February 2005.

#### *Status of Claims*

2. Claims 15, 17 and 19 are currently amended. Claims 15, 17 and 19 are pending in this application.
- 


#### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15, 17 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter.

Claims 15, 17, and 19 are rejected under 35 U.S.C. 101 as non-statutory. In particular there is no mention in the claims of a technological basis in the body of the claim linked with technology described in the preamble of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 U.S.C. 101. In contrast, a method claim that includes in the



Art Unit: 3624

body of the claim at least one structural / functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte Bowman, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) - used only for content and reasoning since not precedential].

*Claim Rejections - 35 USC § 112*

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4. ~~The following is a quotation of the first paragraph of 35 U.S.C. 112:~~

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 15, 17 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contain subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the specification does not support any means for carrying out the steps of the invention, for example, creating at least one volatility contract as well trading the at least one volatility contract. The specification is short on any specific directions or guidance as to actually gather the necessary data, inputting the required data and programming a computer to achieve the desired results.



*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefano Karmis whose telephone number is (571) 272-6744. The examiner can normally be reached on M-F: 8-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (571) 272-6747. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted  
Stefano Karmis  
12 May 2005

  
HANI M. KAZIMI  
PRIMARY EXAMINER

# EXHIBIT 2

PATENT

Docket No. Krause-01

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: KRAUSE, Robert P.

) Examiner: Karmanis, Stephano

) Art Unit : 3624

Serial No.: 09/505,947

Filed: February 15, 2000

CERTIFICATE OF MAILING

For: FINANCIAL INSTRUMENTS, SYSTEM AND  
EXCHANGES (FINANCIAL, STOCK, OPTION  
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) mailing to Commissioner for Patents,  
) P.O. Box 1450, Alexandria, VA  
) 22313-1450 on November 21, 2005  
(date of deposit).

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

by: 

Mitchell A. Stein

Reg. No. 30,978

(Registered Representative)

**PETITION FOR EXTENSION OF TIME**

S I R :

Applicant respectfully requests a three month extension of time to respond to the Office Action May 19, 2005, which set a three month time period to respond, thereby extending the time to respond through to, and including November 20, 2005 (November 19, 2005 being a Saturday), the date of this mailing. Applicant includes herewith the proscribed Small Entity fee of \$510.00, pursuant to 1253/2253, 37 C.F.R. 1.17(a)(3), by credit card. Form PTO-2038 (completed) is attached.

**INTRODUCTORY STATEMENT**

In response to the Office Action dated May 19, 2005, applicant respectfully requests that the above-identified application be reconsidered and allowed in view of the remarks which follow

and the File History of this case indicating allowable subject matter in the Office Action dated April 16, 2003 pending redrafting (which occurred) in independent format.

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<sup>1</sup>Since there are no amendments to the claims, it appears unnecessary to re-include the same which are, instead, incorporated by reference. Persuasive arguments, are, respectfully presented traversing the “new” rejections.

### REMARKS

In the Office Action dated May 19, 2005, the Examiner rejected claims 15, 17, and 19 under 35 U.S.C. §101 alleging that the claimed invention is purportedly directed to non-statutory subject matter. The Examiner also rejected claims 15, 17, and 19 under 35 U.S.C. §112 for allegedly failing to comply with the enablement requirement. Reconsideration and withdrawal of these rejections, and issuance of a Notice of Allowance is respectfully requested in light of the remarks set forth hereinbelow.

Claims 1-13 were previously withdrawn. Claims 14, 16, and 18 were previously cancelled. Claims 15, 17, and 19 remain under prosecution in this application.

By way of background, in the April 16, 2003 Office Action, the Examiner explicitly stated:

5. Claims 15, 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(April 16, 2003 Office Action, page 4, ¶ 5.)

In response thereto, on October 16, 2003, Applicant duly followed the Examiner's request, and amended the three claims, cancelling the remainder (without prejudice) and incorporating all of the limitations of the base claims and any intervening claims. By so doing, Applicant duly expected a Notice of Allowance.

Instead, the Examiner has apparently objected to the language on a statutory basis. By way of background, Applicant's invention is directed to a method and system for a financial instrument, which, with all due respect, falls well within the requirements of 35 U.S.C. § 101, as financial instruments are inherently allowable. By way of example, Applicant annexes hereto as Exhibit A, U.S. Patent No. 6,947,901 which clearly defines both the instrument (mathematically) (*see, e.g.*,

claim 1) as well as the financial exchange for trading (*see, e.g.,* claim 13). Likewise, the search of the U.S.P.T.O.'s database shows 47 issued patents that contain "financial instruments" in their claims. It cannot, respectfully, be stated that financial instruments or their trading, to which the subject application is directed, or the mere use of formulae, which are well within the purview of patent protection (*see, e.g.,* 37 C.F.R. § 1.58(a) "[t]he specification, including the claims, may contain . . . mathematical formulae") are not within the scope of patentable subject matter under 35 U.S.C. § 101.

Indeed, an understanding of investment banking by one skilled in the art will reveal that the formulae define patentably distinct inventions (as this Examiner has already admitted) that such a person can well comprehend when armed with the specification and claims. Applicant requests nothing more than that to which the statute provides, and that to which the Examiner has heretofore concurred and should respectfully be estopped from changing.

Likewise, one of ordinary skill in the computer arts will well recognize that the computer merely follows a series of instructions that are mathematical in nature. To explain that a formulae can be computer-enabled is unnecessary, as it is evident to one of ordinary skill. Hence inclusion of "computer aided" language is unnecessary and also not itself limiting.

Indeed, as Exhibit C, the Examiner is respectfully directed to the White Paper (Ex. C) and its progeny for further explanation of business methods (with or without mathematical formulae) as lying well within the purview of statutorily permitted patentability.

With respect to the Examiner's concern under 35 U.S.C. §101, applicant respectfully asserts that the body of the claim, which itself is part and parcel of the entire application, includes a technological basis as described in the preamble. In sum, the claims, as a whole, produce a

“useful, concrete and tangible result.” *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373-4 (C.A.Fed. (Mass.),1998). (A copy of this leading decision is annexed as Exhibit D.) Each of claims 15, 17, and 19 have structural/functional interrelationship which can be computer implemented and indeed have a technological basis. (By way of background, the File History will show that the Examiner requested that the preamble be modified to include the computer assistance, yet now complains that the same has been included. The undersigned, a programmer for 34 years, affirms that any action that a computer performs is but a series of instructions that a human being can also perform, albeit more slowly and deliberately. Hence the computer assistance has been disbanded as a requirement under *State Street* and, indeed, the U.S.P.T.O. has often times taken the position that *State Street* is not a sea change in the law, as the Office has always recognized these facts and subject matter.

Moreover, the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility

([www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)) similar to the holding in the *State Street Bank*, cited above, explains that “a practical application of a 35 U.S.C. §101 judicial exception is claimed if the claimed invention physically transforms an article or physical object to a different state or thing, or if the claimed invention otherwise produces useful, concrete, and tangible result.” The instant application, specifically claims 15, 17, and 19, provide mathematical formulae whereby the user can calculate future volatility when executing a negotiable instrument.

“It is of course true that a modern digital computer manipulates data, usually in binary form, by performing mathematical operations, such as addition, subtraction, multiplication, division, or bit

shifting, on the data. But this is only how the computer does what it does. Of importance is the significance of the data and their manipulation in the real world, i.e., what the computer is doing.”

*Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1057 (C.A.Fed. (Tex.),1992). The subject invention has features, specifically the mathematical formulae included in claims 15, 17, and 19, which allow the user to create a negotiable instrument that takes into account future volatility and clearly has “real world” value; it is therefore, by statutory and judicial interpretation (let alone the File History) more than an abstract idea or concept.

It is respectfully requested that this basis for rejection having been obviated, that the Examiner indicate the same in the subject File History and pass this case to issue as it has been in prosecution for a prolonged period.

With respect to the Examiner’s second concern under 35 U.S.C. §112, applicant respectfully asserts that the instant patent application contains a complete written description with such specificity as to allow one of ordinary skill in the art (investment banking) to make and use the same. Specifically, the specification sets forth sufficient information to teach others to generate negotiable instruments, including generation, creation, and analysis that can be applied usefully by others. Applicant respectfully suggests that such enablement requires knowledge in the field of financial and negotiable instruments and exchanges that trade in such instruments. On a personal note, the undersigned required an education to become fluent in the field of one of ordinary skill in such art. With no ill-respect intended, the sophistication of the subject application may require the same of the Office.

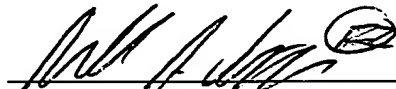


In view of the above, each of the claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

The Examiner's continued careful consideration of the subject application is appreciated. Moreover, IT IS RESPECTFULLY REQUESTED THAT THE EXAMINER CALL THE UNDERSIGNED FOR FURTHER EXPLANATION AND TO RESOLVE TERMINOLOGY IF NECESSARY TO PERMIT ALLOWANCE. The undersigned has already called and left word, and the kind gesture of a response is respectfully sought.

Respectfully submitted,

Dated: November 21, 2005



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# EXHIBIT A

# EXHIBIT C

# UNITED STATES PATENT AND TRADEMARK OFFICE

USPTO White Paper

HOME



## AUTOMATED FINANCIAL OR MANAGEMENT DATA PROCESSING METHODS (BUSINESS METHODS)

EXECUTIVE  
SUMMARY

### EXECUTIVE SUMMARY

INTRODUCTION

Recently there has been a marked increase in public attention to the operations of the United States Patent and Trademark Office (USPTO), and specifically, the workgroup responsible for examining patent applications in automated business data processing technologies, Class 705.

ORIGINS  
(1790-2000)

CLASS 705

RESOURCES IN  
TRANSITION

On March 29, 2000, the USPTO announced a plan to improve the quality of the examination process in technologies related to electronic commerce and business methods.

IMPROVING  
QUALITY

CUSTOMER  
PARTNERSHIP

This white paper discusses the patent history of business data processing, the transition this technology is beginning, and the initiatives the USPTO is engaged in to keep pace with this transition and to improve quality in the examination of this technology.

CONCLUSION

EXAMPLES  
APPENDICES

DOWNLOADS

**Origin and Evolution** - Business data processing has followed an unbroken evolutionary path from mechanical technology up to today's software controlled microprocessors. Automated business data processing itself dates back over a hundred years. The business method claim format has been used in various forms throughout that period. The increase in its use today is an inevitable end result of our progress over the last century.

**Class 705 (Modern Business Data Processing)** - This class contains numerous small groupings and four major groupings directed to specific and general business data processing machines and methods. These machines and methods still heavily reflect the electrical and computer engineering that underlay them. Class 705 saw about 1% of the total patent applications filed at the USPTO in FY 1999. Its 2658 applications did not even place it among the top five Communications and Information Processing technologies.

**Resources In Transition** - In 1998, the State Street decision triggered an awareness of the "business method claim" as a viable form of patent protection. We are at the beginning of a change in the approach to how inventors choose to describe their inventions. This change is in turn driving a shift in the required examiner knowledge base for the examination of Class 705 inventions. As it has for over a century, the USPTO is responding appropriately and is adapting its knowledge base as the needs of the business technologies evolve.

**Improving Quality** - It is universally agreed that high quality examination by USPTO Patent Examiners must be ensured. Quality initiatives are continuously updated. This white paper highlights initiatives in place prior to March 2000, as well as, quality initiatives announced in March by Q. Todd Dickinson, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office.

**Customer Partnerships** - These are important to improving quality as the USPTO gauges

the future needs of Class 705. Customers will know first the future evolution of business data processing technology. Customers' application filings will control the transition of patent application format towards the "business method form" and any future shift that will be required in the knowledge base of Class 705 examiners. They are also in a unique position to assist in providing training needed as part of adapting the knowledge base.

## I. INTRODUCTION

On September 23, 1975, Ivan E. Sutherland of the Rand Corporation received the 1975 Award for Outstanding Accomplishment of the Systems, Man, and Cybernetics Society. In his acceptance address entitled "Computerized Commerce" ([Footnote 1](#)), Mr. Sutherland states "What we should be building is a system of computerized commerce: a "smart" communications network which can remember, process, forward, remind and schedule as well as merely communicating". Mr. Sutherland continues "Computers will become the repositories of manufacturing know-how. Parts lists, purchasing specifications, lists of qualified vendors, design information, fabrication directions, and production history will all be stored in computers. Individuals will be free to take on new tasks more easily than ever before, because the instructions required for those tasks will be available through a variety of on-line computer terminals".

In the mid-1990s, Mr. Sutherland's proposed "smart" communication network, now called "Electronic Commerce" or "e-commerce" began finding its niche in the business world. In recent years, the growth of the business technologies, especially the electronic commerce business industry has been phenomenal. This growth has resulted in an increase of business technology patent application filings. Concomitant with this increase in filings there has been a marked increase in public attention to the operations of Workgroup 2760 of the United States Patent and Trademark Office (USPTO) currently responsible for examining patent applications in business related data processing methods and technologies, Class 705.

One prominent portion of business method patents is the area of "Automated Financial/Management Business Data Processing Method Patents." Such automated business methods are found in U.S. Patent Class 705..

## II. ORIGINS OF FINANCIAL/MANAGEMENT BUSINESS PATENTS - PRODUCT, APPARATUS AND METHOD

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The creation of a patent system was one of the acts performed by the First Congress of the United States. The first patent statute was passed on April 5, 1790, by the Congress of the twelve United States and signed into law on April 10 by President Washington. Rhode Island ratified the Constitution and joined the Union 49 days later on May 29, 1790. The "Commissioners for the Promotion of the Useful Arts" granted the first United States patent on July 31, 1790. The Commission consisted of Secretary of State Thomas Jefferson, Secretary of War Henry Knox, and Attorney General Edmund Randolph. This first patent was to a chemical method for making potash and pearl ash. ([Footnote 2](#))

Financial apparatus and method patents date back to this period. These early financial patents were largely paper-related products and methods. The first financial patent was granted on March 19, 1799, to Jacob Perkins of Massachusetts for an invention for "Detecting Counterfeit Notes." All details of Mr. Perkins invention, which we presume was a device or process in the printing art, were lost in the great Patent Office fire of 1836. We only know of its existence from other sources. Mr. Perkins was perhaps our young nation's most prolific early inventor with nearly 1% of all patents from our first quarter century. Upon his death in 1849, his obituary filled three pages of the Commissioner of Patents annual report to Congress. ([Footnote 3](#)) The first financial patent for which any detailed written description survives was to a printing method entitled "A Mode of Preventing Counterfeiting" granted to John Kneass on April 28, 1815. The first fifty years of the U.S. Patent Office saw the granting of forty-one financial patents in the arts of bank notes (2 patents), bills of credit (1), bills of exchange (1), check blanks (4); detecting and preventing counterfeiting (10), coin counting

(1), interest calculation tables (5), and lotteries (17).<sup>(Footnote 4)</sup> Financial patents in the paper-based technologies have been granted continuously for over two-hundred years. See [Appendix A](#) for sample Patents.

Automated financial/management business data processing method patents cannot trace their origins back to the founding of our nation. However, contrary to popular view, they did not suddenly spring into being in the late 1990's. On January 8, 1889, the era of automated financial/management business data processing method patents was born. United States patents 395,781; 395,782; and 395,783 were granted to inventor-entrepreneur Herman Hollerith on that date.<sup>(Footnote 5)</sup> See [Appendix B](#) for Mr. Hollerith's Patents. Mr. Hollerith's method and apparatus patents automated the tabulating and compiling of statistical information for businesses and enterprises. They were acclaimed nationally and viewed as revolutionizing business data processing. The protection of his patents allowed his fledgling Tabulating Machine Company to succeed and thrive. In 1924, Thomas J. Watson, Sr. changed the company name to International Business Machine Corporation. Hollerith manual punch cards (IBM punch cards) and his methods for processing business data were still being used up until the birth of the personal computer era.<sup>(Footnote 6)</sup>

The financial/management business data processing method patents of today are more numerous and more sophisticated than those of 1889. However, this is not a function of the business method ingenuity of our forebears. Rather, this is directly a function of high cost, low speed, and limited availability of automated data processing machines in the 1890's versus the low cost, high speed, and wide spread use of today's computers. Put another way, we invented some automated business data processing methods over the last one hundred years, but we spent the bulk of that time perfecting the automated business data processing machines upon which we will run the methods. It is only recently that data processing systems have become sufficiently developed to begin to allow us to fully tap our ingenuity in the business method arts.

The development of today's business data processing systems follows an unbroken evolutionary path back to simple manually operated mechanical registering devices that predate electrically controlled Hollerith type machines. See [Appendix C](#) - 1870 to 1905. Purely mechanical business data processing reached its zenith in the early 20<sup>th</sup> century. For about \$100 (\$2000 today), a 1909 merchant could purchase a cash register system that even now is one of the most sophisticated mechanical devices ever constructed. See [Appendix D](#) - 1906 to 1920. Unfortunately, business data processing was simplistic in even the most powerful of these totally mechanical registering systems. None were able to match the data processing power of the electrical-mechanical systems such as the Hollerith tabulator. However, manufacturing cost was a key issue and it was not until the 1930s that electrical-mechanical superseded purely mechanical in day-to-day business data processing systems. See [Appendix E](#) - 1921 to 1940.

The full arrival of electricity as a component in business data processing system was a watershed event. Electrical-mechanical devices provided far more business data processing power than their mechanical predecessors did. By the 1930s it was cost effective to build far more complex data processing systems. A pattern was set that has repeated itself in successive evolutionary steps since the 1930s. Electrical-mechanical switches were replaced by individual transistors. Individual transistors were replaced in turn by small-scale integrated circuits which were replaced by large-scale integrated circuits. Each new generation resulted in increased business data processing power and new inventions. However, one key thing was not significantly improved by each of these generations. Even with the arrival of larger-scale integrated circuits, each data processing system had to be individually designed at the transistor level and hard-wired to perform the correct business data processing functions. The time from innovation through design and manufacturing to market was too long and needed to be improved. The replacement of specific function large-scale integrated circuits by software controlled microprocessors allowed this to occur and was the latest evolutionary step to bring us to the business data processing systems of today. See [Appendix F](#) - 1941-1995.

[Return to the Top of this page.](#)

[Go to the Next Section >>](#)

# EXHIBIT D



[West Reporter Image \(PDF\)](#)

149 F.3d 1368, 47 U.S.P.Q.2d 1596

**Briefs and Other Related Documents**

United States Court of Appeals,  
Federal Circuit.  
STATE STREET BANK & TRUST CO., Plaintiff-Appellee,  
v.  
SIGNATURE FINANCIAL GROUP, INC. Defendant-Appellant.  
No. 96-1327.  
July 23, 1998.

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Before RICH, PLAGER, and BRYSON, Circuit Judges.

RICH, Circuit Judge.

Signature Financial Group, Inc. (Signature) appeals from the decision of the United States District Court for the District of Massachusetts granting a motion for summary judgment in favor of State Street Bank & Trust Co. (State Street), finding U.S. Patent No. 5,193,056 (the '056 patent) invalid on the ground that the claimed subject matter is not encompassed by 35 U.S.C. § 101 (1994). See State Street Bank & Trust Co. v. Signature Financial Group, Inc., 927 F.Supp. 502, 38 USPQ2d 1530 (D.Mass.1996). We reverse and remand because we conclude that the patent claims are directed to statutory subject matter.

#### BACKGROUND

Signature is the assignee of the '056 patent which is entitled "Data Processing System for Hub and Spoke Financial Services Configuration." The '056 patent issued to Signature on 9 March 1993, naming R. Todd Boes as the inventor. The '056 patent is generally directed to a data processing system (the system) for implementing an investment structure which was developed for use in Signature's business as an administrator and accounting agent for mutual funds. In essence, the system, identified by the proprietary name Hub and Spoke®, facilitates a structure whereby mutual funds (Spokes) pool their assets in an investment portfolio (Hub) organized as a partnership. This investment configuration provides the administrator of a mutual fund with the advantageous combination of economies of scale in administering investments coupled with the tax advantages of a partnership.

State Street and Signature are both in the business of acting as custodians and accounting agents for multi-tiered partnership fund financial services. State Street negotiated with Signature for a license to use its patented data processing system described and claimed in the '056 patent. When negotiations broke down, State Street brought a declaratory judgment action asserting invalidity, unenforceability, and noninfringement in Massachusetts district court, and then filed a motion for partial summary judgment of patent invalidity for failure to claim statutory subject matter under § 101. The motion was granted and this appeal followed.

#### DISCUSSION

[1][2][3] On appeal, we are not bound to give deference to the district court's grant of summary judgment, but must make an independent determination that the standards for summary judgment have been met. Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1560, 19 USPQ2d 1111, 1114 (Fed.Cir.1991). Summary judgment is properly granted where there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed.R.Civ.P. 56(c). The substantive issue at hand, whether the '056 patent is invalid for failure to claim statutory subject matter under § 101, is a matter of both claim construction and statutory construction. "[W]e review claim construction *de novo* including any allegedly fact-based questions relating to claim construction." Cybor Corp. v. FAS

*Techs.*, 138 F.3d 1448, 1451, 46 USPQ2d 1169, 1174 (Fed.Cir.1998) (*in banc*). We also review statutory construction *de novo*. See *Romero v. United States*, 38 F.3d 1204, 1207 (Fed.Cir.1994). We hold that declaratory judgment plaintiff State Street was not entitled to the grant of summary judgment of invalidity of the '056 patent under § 101 as a matter of law, because the patent claims are directed to statutory subject matter.

The following facts pertinent to the statutory subject matter issue are either undisputed or represent the version alleged by the nonmovant. See *\*1371 Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). The patented invention relates generally to a system that allows an administrator to monitor and record the financial information flow and make all calculations necessary for maintaining a partner fund financial services configuration. As previously mentioned, a partner fund financial services configuration essentially allows several mutual funds, or "Spokes," to pool their investment funds into a single portfolio, or "Hub," allowing for consolidation of, *inter alia*, the costs of administering the fund combined with the tax advantages of a partnership. In particular, this system provides means for a daily allocation of assets for two or more Spokes that are invested in the same Hub. The system determines the percentage share that each Spoke maintains in the Hub, while taking into consideration daily changes both in the value of the Hub's investment securities and in the concomitant amount of each Spoke's assets.

In determining daily changes, the system also allows for the allocation among the Spokes of the Hub's daily income, expenses, and net realized and unrealized gain or loss, calculating each day's total investments based on the concept of a book capital account. This enables the determination of a true asset value of each Spoke and accurate calculation of allocation ratios between or among the Spokes. The system additionally tracks all the relevant data determined on a daily basis for the Hub and each Spoke, so that aggregate year end income, expenses, and capital gain or loss can be determined for accounting and for tax purposes for the Hub and, as a result, for each publicly traded Spoke. It is essential that these calculations are quickly and accurately performed. In large part this is required because each Spoke sells shares to the public and the price of those shares is substantially based on the Spoke's percentage interest in the portfolio. In some instances, a mutual fund administrator is required to calculate the value of the shares to the nearest penny within as little as an hour and a half after the market closes. Given the complexity of the calculations, a computer or equivalent device is a virtual necessity to perform the task.

The '056 patent application was filed 11 March 1991. It initially contained six "machine" claims, which incorporated means-plus-function clauses, and six method claims. According to Signature, during prosecution the examiner contemplated a § 101 rejection for failure to claim statutory subject matter. However, upon cancellation of the six method claims, the examiner issued a notice of allowance for the remaining present six claims on appeal. Only claim 1 is an independent claim.

[4] The district court began its analysis by construing the claims to be directed to a process, with each "means" clause merely representing a step in that process. However, "machine" claims having "means" clauses may only be reasonably viewed as process claims if there is no supporting structure in the written description that corresponds to the claimed "means" elements. See *In re Alappat*, 33 F.3d 1526, 1540-41, 31 USPQ2d 1545, 1554 (Fed.Cir.1994) (*in banc*). This is not the case now before us.

[5] When independent claim 1 is properly construed in accordance with § 112, ¶ 6, it is directed to a machine, as demonstrated below, where representative claim 1 is set forth, the subject matter in brackets stating the structure the written description discloses as corresponding to the respective "means" recited in the claims.

1. A data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising:

- (a) computer processor means [a personal computer including a CPU] for processing data;
- (b) storage means [a data disk] for storing data on a storage medium;
- (c) first means [an arithmetic logic circuit configured to prepare the data disk to magnetically store selected data] for initializing the storage medium;
- (d) second means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases or decreases based on specific input, allocate the results on a percentage basis, and store the output in a *\*1372* separate file] for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds, [sic, funds'] assets and for allocating the percentage share that each fund holds in the portfolio;
- (e) third means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases and decreases based on specific input, allocate the results on a percentage basis and store the output in a separate file] for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund;
- (f) fourth means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases and decreases based on specific input, allocate the results on a percentage basis and store the output in a separate file] for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and
- (g) fifth means [an arithmetic logic circuit configured to retrieve information from specific files, calculate that information on an aggregate basis and store the output in a separate file] for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

Each claim component, recited as a "means" plus its function, is to be read, of course, pursuant to § 112, ¶ 6, as inclusive of the "equivalents" of the structures disclosed in the written description portion of the specification. Thus, claim 1, properly construed, claims a machine, namely, a data processing system for managing a financial services configuration of a portfolio established as a partnership, which machine is made up of, at the very least, the specific structures disclosed in the written description and corresponding to the means-plus-function elements (a)-(g) recited in the claim. A "machine" is proper statutory subject matter under § 101. We note that, for the purposes of a § 101 analysis, it is of little relevance whether claim 1 is directed to a "machine" or a "process," as long as it falls within at least one of the four enumerated categories of patentable subject matter, "machine" and "process" being such categories.

This does not end our analysis, however, because the court concluded that the claimed subject matter fell into one of two alternative judicially-created exceptions to statutory subject matter. [FN1] The court refers to the first exception as the "mathematical algorithm" exception and the second exception as the "business method" exception. Section 101 reads:

FN1. Indeed, although we do not make this determination here, the judicially created exceptions, i.e., abstract ideas, laws of nature, etc., should be applicable to all categories of statutory subject matter, as our own precedent suggests. See *Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556; see also *In re Johnston*, 502 F.2d 765, 183 USPQ 172 (CCPA 1974)

(Rich, J., dissenting).

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The plain and unambiguous meaning of § 101 is that any invention falling within one of the four stated categories of statutory subject matter may be patented, provided it meets the other requirements for patentability set forth in Title 35, i.e., those found in §§ 102, 103, and 112, ¶ 2. [FN2]

FN2. As explained in *In re Bergy*, 596 F.2d 952, 960, 201 USPQ 352, 360 (CCPA 1979) (emphases and footnote omitted):

The first door which must be opened on the difficult path to patentability is § 101 .... The person approaching that door is an inventor, whether his invention is patentable or not .... Being an inventor or having an invention, however, is no guarantee of opening even the first door. What kind of an invention or discovery is it? In dealing with the question of kind, as distinguished from the qualitative conditions which make the invention patentable, § 101 is broad and general; its language is: "any \* \* \* process, machine, manufacture, or composition of matter, or

any \* \* \* improvement thereof." Section 100(b) further expands "process" to include "art or method, and \* \* \* a new use of a known process, machine, manufacture, composition of matter, or material." If the invention, as the inventor defines it in his claims (pursuant to § 112, second paragraph), falls into any one of the named categories, he is allowed to pass through to the second door, which is § 102; "novelty and loss of right to patent" is the sign on it. Notwithstanding the words "new and useful" in § 101, the invention is not examined under that statute for novelty because that is not the statutory scheme of things or the long-established administrative practice.

**\*1373** [6] The repetitive use of the expansive term "any" in § 101 shows Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101. Indeed, the Supreme Court has acknowledged that Congress intended § 101 to extend to "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 309, 100 S.Ct. 2204, 65 L.Ed.2d 144 (1980); see also *Diamond v. Diehr*, 450 U.S. 175, 182, 101 S.Ct. 1048, 67 L.Ed.2d 155 (1981). [FN3] Thus, it is improper to read limitations into § 101 on the subject matter that may be patented where the legislative history indicates that Congress clearly did not intend such limitations. See *Chakrabarty*, 447 U.S. at 308, 100 S.Ct. 2204 ("We have also cautioned that courts 'should not read into the patent laws limitations and conditions which the legislature has not expressed.' " (citations omitted)).

FN3. The Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man." S.Rep. No. 82-1979 at 5 (1952); H.R.Rep. No. 82-1923 at 6 (1952).

#### *The "Mathematical Algorithm" Exception*

The Supreme Court has identified three categories of subject matter that are unpatentable, namely "laws of nature, natural phenomena, and abstract ideas." Diehr, 450 U.S. at 185, 101 S.Ct. 1048. Of particular relevance to this case, the Court has held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas. See Diehr, 450 U.S. 175, 101 S.Ct. 1048, *passim*; Parker v. Flook, 437 U.S. 584, 98 S.Ct. 2522, 57 L.Ed.2d 451 (1978); Gottschalk v. Benson, 409 U.S. 63, 93 S.Ct. 253, 34 L.Ed.2d 273 (1972). In Diehr, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., "a useful, concrete and tangible result." Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557. [FN4]

FN4. This has come to be known as the mathematical algorithm exception. This designation has led to some confusion, especially given the Freeman-Walter-Abele analysis. By keeping in mind that the mathematical algorithm is unpatentable only to the extent that it represents an abstract idea, this confusion may be ameliorated.

[7] Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not "useful." From a practical standpoint, this means that to be patentable an algorithm must be applied in a "useful" way. In Alappat, we held that data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced "a useful, concrete and tangible result"--the smooth waveform.

Similarly, in Arrhythmia Research Technology Inc. v. Corazonix Corp., 958 F.2d 1053, 22 USPQ2d 1033 (Fed.Cir.1992), we held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a useful, concrete or tangible thing--the condition of a patient's heart.

~~[8] Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.~~

The district court erred by applying the Freeman-Walter-Abele test to determine whether the claimed subject matter was an unpatentable abstract idea. The Freeman-Walter-Abele test was designed by the Court \*1374 of Customs and Patent Appeals, and subsequently adopted by this court, to extract and identify unpatentable mathematical algorithms in the aftermath of Benson and Flook. See In re Freeman, 573 F.2d 1237, 197 USPQ 464 (CCPA 1978) as modified by In re Walter, 618 F.2d 758, 205 USPQ 397 (CCPA 1980). The test has been thus articulated:

First, the claim is analyzed to determine whether a mathematical algorithm is directly or indirectly recited. Next, if a mathematical algorithm is found, the claim as a whole is further analyzed to determine whether the algorithm is "applied in any manner to physical elements or process steps," and, if it is, it "passes muster under § 101." In re Pardo, 684 F.2d 912, 915, 214 USPQ 673, 675-76 (CCPA 1982) (citing In re Abele, 684 F.2d 902, 214 USPQ 682 (CCPA 1982)). [FN5]

FN5. The test has been the source of much confusion. In In re Abele, 684 F.2d 902, 214 USPQ 682 (CCPA 1982), the CCPA upheld claims applying "a mathematical formula within the context of a process which encompasses significantly more than the algorithm alone." Id. at 909. Thus, the CCPA apparently inserted an additional consideration--the significance of additions to the algorithm. The CCPA appeared to abandon the application of the test in In re Taner, 681 F.2d 787, 214 USPQ 678 (CCPA 1982), only to subsequently "clarify" that the Freeman-Walter-Abele test was simply not the exclusive test for detecting unpatentable subject matter. In re Meyer, 688 F.2d 789, 796, 215 USPQ 193, 199 (CCPA 1982).

[9] After *Diehr* and *Chakrabarty*, the Freeman-Walter-Abele test has little, if any, applicability to determining the presence of statutory subject matter. As we pointed out in *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1557, application of the test could be misleading, because a process, machine, manufacture, or composition of matter employing a law of nature, natural phenomenon, or abstract idea is patentable subject matter even though a law of nature, natural phenomenon, or abstract idea would not, by itself, be entitled to such protection. [FN6] The test determines the presence of, for example, an algorithm. Under *Benson*, this may have been a sufficient indicium of nonstatutory subject matter. However, after *Diehr* and *Alappat*, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. [FN7] After all, as we have repeatedly stated,

FN6. See e.g. *Parker v. Flook*, 437 U.S. 584, 590, 98 S.Ct. 2522, 57 L.Ed.2d 451 (1978) ("[A] process is not unpatentable simply because it contains a law of nature or a mathematical algorithm."); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130, 68 S.Ct. 440, 92 L.Ed. 588 (1948) ("He who discovers a hitherto unknown phenomenon of nature has no claim to a monopoly of it which the law recognizes. If there is to be invention from such a discovery, it must come from the application of the law to a new and useful end."); *Mackay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94, 59 S.Ct. 427, 83 L.Ed. 506 (1939) ("While a scientific truth, or the mathematical expression of it, is not a patentable

invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.").

[W]hen a claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of § 101.

*Diehr*, 450 U.S. at 192, 101 S.Ct. 1048; see also *In re Iwahashi*, 888 F.2d 1370, 1375, 12 USPQ2d 1908, 1911 (Fed.Cir.1989); *Taner*, 681 F.2d at 789, 214 USPQ at 680. The dispositive inquiry is whether the claim as a whole is directed to statutory subject matter. It is irrelevant that a claim may contain, as part of the whole, subject matter which would not be patentable by itself. "A claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula, computer program or digital computer." *Diehr*, 450 U.S. at 187, 101 S.Ct. 1048.

FN7. As the Supreme Court expressly stated in *Diehr*, its own holdings in *Benson* and *Flook* "stand for no more than these long-established principles" that abstract ideas and natural phenomena are not patentable. *Diehr*, 450 U.S. at 185, 101 S.Ct. 1048 (citing

*Chakrabarty*, 447 U.S. at 309, 100 S.Ct. 2204 and *Funk Bros.*, 333 U.S. at 130, 68 S.Ct. 440.).

every step-by-step process, be it electronic or chemical or mechanical, involves an algorithm in the broad sense of the term. Since § 101 expressly includes processes as a category of inventions which may be patented and § 100(b) further defines the word "process" as meaning "process, art or \*1375 method, and includes a new use of a known process, machine, manufacture, composition of matter, or material," it follows that it is no ground for holding a claim is directed to nonstatutory subject matter to say it includes or is directed to an algorithm. This is why the proscription against patenting has been limited to *mathematical* algorithms....

*In re Iwahashi*, 888 F.2d 1370, 1374, 12 USPQ2d 1908, 1911 (Fed.Cir.1989) (emphasis in the original). [FN8]

FN8. In *In re Pardo*, 684 F.2d 912 (CCPA 1982), the CCPA narrowly limited "mathematical algorithm" to the execution of formulas with given data. In the same year, in *In re Meyer*, 688 F.2d 789, 215 USPQ 193 (CCPA 1982), the CCPA interpreted the same term to include any mental process that can be represented by a mathematical algorithm. This is also the position taken by the PTO in its Examination Guidelines, 61 Fed.Reg.

7478, 7483 (1996).

[10] The question of whether a claim encompasses statutory subject matter should not focus on *which* of the four categories of subject matter a claim is directed to [FN9]--process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See In re Warmerdam, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed.Cir.1994). For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result." Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557. This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.

FN9. Of course, the subject matter must fall into at least one category of statutory subject matter.

#### *The Business Method Exception*

[11] As an alternative ground for invalidating the '056 patent under § 101, the court relied on the judicially-created, so-called "business method" exception to statutory subject matter. We take this opportunity to lay this ill-conceived exception to rest. Since its inception, the "business method" exception has merely represented the application of some general, but no longer applicable legal principle, perhaps arising out of the "requirement for invention"--which was eliminated by § 103. Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method. [FN10]

FN10. As Judge Newman has previously stated,

[The business method exception] is ... an unwarranted encumbrance to the definition of statutory subject matter in section 101, that [should] be discarded as error-prone, redundant, and obsolete. It merits retirement from the glossary of section 101.... All of the "doing business" cases could have been decided using the clearer concepts of Title 35. Patentability does not turn on whether the claimed method does "business" instead of something else, but on whether the method, viewed as a whole, meets the requirements of patentability as set forth in Sections 102, 103, and 112 of the Patent Act.

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In re Schrader, 22 F.3d 290, 298, 30 USPQ2d 1455, 1462 (Fed.Cir.1994) (Newman, J., dissenting).

The business method exception has never been invoked by this court, or the CCPA, to deem an invention unpatentable. [FN11] Application of this particular exception has always been preceded by a ruling based on some clearer concept of Title 35 or, more commonly, application of the abstract idea exception based on finding a mathematical algorithm. Illustrative is the CCPA's analysis in In re Howard, 55 C.C.P.A. 1121, 394 F.2d 869, 157 USPQ 615 (CCPA 1968), wherein the court affirmed the Board of Appeals' rejection of the claims for lack of novelty and found it unnecessary to reach the Board's section 101 ground that a method of doing business is "inherently unpatentable." *Id.* at 872, 55 C.C.P.A. 1121, 394 F.2d 869, 157 USPQ at 617. [FN12]

FN11. See Rinaldo Del Gallo, III, *Are "Methods of Doing Business" Finally out of Business as a Statutory Rejection?*, 38 IDEA 403, 435 (1998).

FN12. See also Dann v. Johnston, 425 U.S. 219, 96 S.Ct. 1393, 47 L.Ed.2d 692 (1976) (the Supreme Court declined to discuss the section 101 argument concerning the computerized financial record-keeping system,

in view of the Court's holding of patent invalidity under section 103); In re Chatfield, 545 F.2d 152, 157, 191 USPQ 730, 735 (CCPA 1976); *Ex parte Murray*, 9 USPQ2d 1819, 1820 (Bd.Pat.App & Interf. 1988)



("[T]he claimed accounting method [requires] no more than the entering, sorting, debiting and totaling of expenditures as necessary preliminary steps to issuing an expense analysis statement ....") states grounds of obviousness or lack of novelty, not of non-statutory subject matter.

**\*1376** Similarly, *In re Schrader*, 22 F.3d 290, 30 USPQ2d 1455 (Fed.Cir.1994), while making reference to the business method exception, turned on the fact that the claims implicitly recited an abstract idea in the form of a mathematical algorithm and there was no "transformation or conversion of subject matter representative of or constituting physical activity or objects." 22 F.3d at 294, 30 USPQ2d at 1459 (emphasis omitted). [FN13]

FN13. Any historical distinctions between a method of "doing" business and the means of carrying it out blur in the complexity of modern business systems. See *Paine, Webber, Jackson & Curtis v. Merrill Lynch*, 564 F.Supp. 1358, 218 USPQ 212 (D.Del.1983), (holding a computerized system of cash management was held to be statutory subject matter.)

State Street argues that we acknowledged the validity of the business method exception in *Alappat* when we discussed *Maucorps* and *Meyer*: *Maucorps* dealt with a business methodology for deciding how salesmen should best handle respective customers and *Meyer* involved a "system" for aiding a neurologist in diagnosing patients. Clearly, neither of the alleged "inventions" in those cases falls within any § 101 category.

*Alappat*, 33 F.3d at 1541, 31 USPQ2d at 1555. However, closer scrutiny of these cases reveals that the claimed inventions in both *Maucorps* and *Meyer* were rejected as abstract ideas under the mathematical algorithm exception, not the business method exception. See *In re Maucorps*, 609 F.2d 481, 484, 203 USPQ 812, 816 (CCPA 1979); *In re Meyer*, 688 F.2d 789, 796, 215 USPQ 193, 199 (CCPA 1982). [FN14]

FN14. Moreover, these cases were subject to the *Benson* era Freeman-Walter-Abele test--in other words, analysis as it existed before *Diehr* and *Alappat*.

Even the case frequently cited as establishing the business method exception to statutory subject matter, *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467 (2d Cir.1908), did not rely on the exception to strike the patent.

~~[FN15] In that case, the patent was found invalid for lack of novelty and "invention," not because it was improper~~  
subject matter for a patent. The court stated "the fundamental principle of the system is as old as the art of bookkeeping, i.e., charging the goods of the employer to the agent who takes them." *Id.* at 469. "If at the time of [the patent] application, there had been no system of bookkeeping of any kind in restaurants, we would be confronted with the question whether a new and useful system of cash registering and account checking is such an art as is patentable under the statute." *Id.* at 472.

FN15. See also *Loew's Drive-in Theatres v. Park-in Theatres*, 174 F.2d 547, 552 (1st Cir.1949) (holding that the means for carrying out the system of transacting business lacked "an exercise of the faculty of invention"); *In re Patton*, 29 C.C.P.A. 982, 127 F.2d 324, 327-28 (CCPA 1942) (finding claims invalid as failing to define patentable subject matter over the references of record.); *Berardini v. Tocci*, 190 F. 329, 332 (C.C.S.D.N.Y.1911); *In re Wait*, 22 C.C.P.A. 822, 73 F.2d 982, 983 (CCPA 1934) ("[S]urely these are, and always have been, essential steps in all dealings of this nature, and even conceding, without holding, that some methods of doing business might present patentable novelty, we think such novelty is lacking here."); *In re Howard*, 55 C.C.P.A. 1121, 394 F.2d 869, 157 USPQ 615, 617 (CCPA 1968) ("[W]e therefore affirm the decision of

the Board of Appeals on the ground that the claims do not define a novel process [so we find it] unnecessary to consider the issue of whether a method of doing business is inherently unpatentable."). Although a clearer statement was made in *In re Patton*, 29 C.C.P.A. 982, 127 F.2d 324, 327, 53 USPQ 376, 379 (CCPA 1942) that a system for transacting business, separate from the means for carrying out the system, is not patentable subject matter, the jurisprudence does not require the creation of a distinct business class of unpatentable subject matter.

This case is no exception. The district court announced the precepts of the business method exception as set forth in several treatises, but noted as its primary reason for finding the patent invalid under the business method exception as follows:

If Signature's invention were patentable, any financial institution desirous of implementing a multi-tiered funding complex modelled (sic) on a Hub and Spoke configuration would be required to seek Signature's permission before embarking on \*1377 such a project. *This is so because the '056 Patent is claimed [sic] sufficiently broadly to foreclose virtually any computer-implemented accounting method necessary to manage this type of financial structure.*

927 F.Supp. 502, 516, 38 USPQ2d 1530, 1542 (emphasis added). Whether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103 and 112. Assuming the above statement to be correct, it has nothing to do with whether what is claimed is statutory subject matter.

In view of this background, it comes as no surprise that in the most recent edition of the Manual of Patent Examining Procedures (MPEP) (1996), a paragraph of § 706.03(a) was deleted. In past editions it read:

Though seemingly within the category of process or method, a method of doing business can be rejected as not being within the statutory classes. See *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467 (2nd Cir.1908) and *In re Wait*, 24 USPQ 88, 22 C.C.P.A. 822, 73 F.2d 982 (1934).

MPEP § 706.03(a) (1994). This acknowledgment is buttressed by the U.S. Patent and Trademark 1996 Examination Guidelines for Computer Related Inventions which now read:

Office personnel have had difficulty in properly treating claims directed to methods of doing business. Claims should not be categorized as methods of doing business. Instead such claims should be treated like any other process claims.

*Examination Guidelines*, 61 Fed.Reg. 7478, 7479 (1996). We agree that this is precisely the manner in which this type of claim should be treated. Whether the claims are directed to subject matter within § 101 should not turn on whether the claimed subject matter does "business" instead of something else.

#### CONCLUSION





The appealed decision is reversed and the case is remanded to the district court for further proceedings consistent with this opinion.

**REVERSED and REMANDED.**


#### Briefs and Other Related Documents (Back to Top)

- STATE STREET BANK & TRUST CO., Plaintiff-Appellee, v. SIGNATURE FINANCIAL GROUP, INC., Defendant-Appellant. 1996 WL 33419512 (Appellate Brief) (C.A.Fed. July 22, 1996), Brief for Appellant Signature Financial Group, Inc.
  - STATE STREET BANK & TRUST CO., Plaintiff-Appellee, v. SIGNATURE FINANCIAL GROUP, INC., Defendant-Appellant. ~~1996 WL 33419515 (Appellate Brief) (C.A.Fed. July 22, 1996), Brief of Amicus Curiae Information Technology Industry Council in Support of Defendant-Appellant Signature Financial Group, Inc.~~
  - STATE STREET BANK & TRUST CO., Plaintiff-Appellee, v. SIGNATURE FINANCIAL GROUP, INC., Defendant-Appellant. 1996 WL 33419513 (Appellate Brief) (C.A.Fed. October 7, 1996), Brief of Appellee State Street Bank and Trust Co.
  - STATE STREET BANK & TRUST CO., Plaintiff-Appellee, v. SIGNATURE FINANCIAL GROUP, INC., Defendant-Appellant. 1996 WL 33419514 (Appellate Brief) (C.A.Fed. October 7, 1996), Brief of Amicus Curiae Visa International Service Association and Mastercard International Incorporated Urging Affirmance of the Judgment Under Review in State Street Bank & Trust Co. v. Signature Financial Group, Inc.
  - STATE STREET BANK & TRUST CO., Plaintiff-Appellee, v. SIGNATURE FINANCIAL GROUP, INC., Defendant-Appellant. 1996 WL 33419516 (Appellate Brief) (C.A.Fed. November 4, 1996), Reply Brief for Appellant Signature Financial Group, Inc.
- 149 F.3d 1368, 47 U.S.P.Q.2d 1596

#### **Briefs and Other Related Documents (Back to top)**

- 1996 WL 33419516 (Appellate Brief) Reply Brief for Appellant Signature Financial Group, Inc. (Nov. 04, 1996) Original Image of this Document with Appendix (PDF) 
- 1996 WL 33419513 (Appellate Brief) Brief of Appellee State Street Bank and Trust Co. (Oct. 07, 1996) Original Image of this Document with Appendix (PDF) 
- 1996 WL 33419514 (Appellate Brief) Brief of Amicus Curiae Visa International Service Association and Mastercard International Incorporated Urging Affirmance of the Judgment Under Review in State Street Bank & Trust Co. v. Signature Financial Group, Inc. (Oct. 07, 1996) Original Image of this Document (PDF) 
- 1996 WL 33419512 (Appellate Brief) Brief for Appellant Signature Financial Group, Inc. (Jul. 22, 1996) Original Image of this Document with Appendix (PDF) 



• [1996 WL 33419515](#) (Appellate Brief) Brief of Amicus Curiae Information Technology Industry Council in Support of Defendant-Appellant Signature Financial Group, Inc. (Jul. 22, 1996)[Original Image of this Document \(PDF\)](#) 

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